



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,710	05/27/2005	Eckhard Wenz	PO8521/LeA 36458	2844
157 7590 07/09/2007 BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			EXAMINER PLEETER, PERRI G	
		ART UNIT 1709	PAPER NUMBER	
		MAIL DATE 07/09/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,710	WENZ ET AL.	
	Examiner	Art Unit	
	Perri G. Pleeter	1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 May 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 21-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 21-41 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>5/27/05</u> .	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-34, 38-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Wittmann et al. (US Pat 5,679,759).

Regarding Claim 21 and 39, Wittmann et al. teaches a molding composition containing a thermoplastic polycarbonate (1:55-60), a emulsion-polymerized graft copolymer (6:10-15) worked-up (6:20-25)/co-precipitated with a thermoplastic aromatic vinyl (co)polymer produced by solution polymerization (7:20-50).

Regarding Claim 22, Wittmann et al. teaches a molding composition containing a thermoplastic polycarbonate in an amount of 15 to 80 parts by weight (1:55-60), an emulsion-polymerized graft copolymer in an amount of 4-40 parts by weight (1:59-61) and a thermoplastic aromatic vinyl (co)polymer produced by solution polymerization in an amount of 16-45 parts by weight (1:65-70).

Regarding Claim 23, Wittmann et al. teaches the molding composition further comprising flame retardants (8:5-15).

Regarding Claim 24, 25, and 32 Wittmann et al. teaches the molding composition with a emulsion polymerized graft polymer of 20 to 60 parts by weight of one or more aromatic vinyl

monomers (5:20-40) and 40 to 80 parts by weight of one or more graft bases such as vinyl cyanide (5:35-40) having glass transition temperatures <0°C (5:25-30). Furthermore, the vinyl monomer of the graft base are emulsion polymerized (6:10-15).

Regarding Claims 26 and 27, Wittmann et al. teaches the molding composition with a mixture of monomers for a graft copolymer comprising styrene (5:30-35) monomer, and of acrylonitrile (5:35-40) in the same parts-by-weight as those listed in the rejection of claim 25 above.

Regarding Claims 28 and 29, Wittmann et al. teaches the molding composition of the rejection of claim 24 above, with a diene rubber grafting base (5:50-55).

Regarding Claims 30 and 31, Wittmann et al. teaches the molding composition of the rejected claim 21 above with a graft polymer produced by emulsion polymerization of the monomers styrene/acrylonitrile with a weight ratio of 73:27 (Example 1).

Regarding Claim 33, Wittmann et al. teaches the molding material with 10 to 30 parts by weight of the graft polymer and 20 to 45 parts by weight of an aromatic vinyl (co)polymer (Claim 2).

Regarding Claim 34, Wittmann et al. teaches the molding material with at least 30 weight% gel content of the graft base (6:1-5).

Regarding Claim 38, Wittmann et al. teaches the molding material with graft polymer B produced by emulsion polymerization of the graft monomers (a mix of styrene/acrylonitrile with a weight ratio of 73:27) and a styrene/acrylonitrile copolymer C having a styrene/acrylonitrile weight ratio of 72:28 (10:5-25). Wittmann further teaches in a blend example that 11 weight % of graft base B was used (Table 2) and states that the weight ratio of components B:C is in

between 2:1 and 1:4 (7:60-67). With a weight ratio of either of the latter stated, the difference in acrylonitrile content with virtually the same weight ratio would differ by at least 1%.

Regarding Claim 40, Wittmann et al. teaches the molding material according to the rejection of claim 21 above in addition to an additive such as a pigment (Claim 9).

Regarding Claim 41, Wittmann et al. teaches molding materials (1:29-32).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

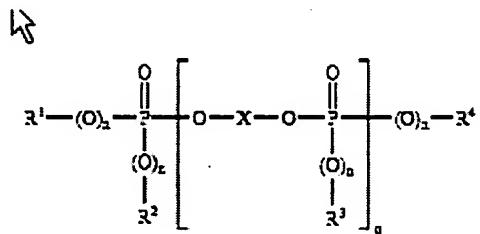
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittmann et al. (US Pat 5,679,759) as applied to claim 21-34 and 38-41 above, and further in view of Telschow et al. (US Pat 5,536,863).

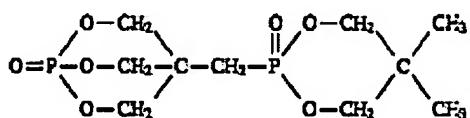
Wittmann et al. teaches the basic molding composition comprising a thermoplastic polycarbonate (1:55-60), a emulsion-polymerized graft copolymer (6:10-15) worked-up (6:20-25)/co-precipitated with a thermoplastic aromatic vinyl (co)polymer produced by solution polymerization (7:20-50).

Regarding Claims 35-36, Wittmann et al. further stipulates that flame retardants may be used as an additive to the molding composition, based on the desired properties (8:10-20).

Wittmann et al. does not teach the specific flame retardant formula as stated in applicant's claim 35:



However, Telschow et al. does teach the following flame retardant:



(1:50-55)

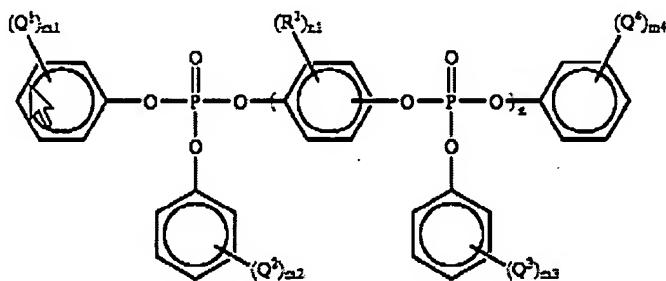
Telschow et al. and Wittman et al. are combinable because they are concerned with the same technical difficulty, namely flame retardants as additives to polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used Telschow's flame retardant as an additive to Wittman's molding composition, and would have been motivated to do so because Telschow explicitly suggests that the molding is suitable for thermoplastic polymers.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wittmann et al. (US Pat 5,679,759) as applied to claim 21-34 and 38-41 above, and further in view of Yoshida et al. (US 2004/0235993).

Wittmann et al. teaches the basic molding composition comprising a thermoplastic polycarbonate (1:55-60), a emulsion-polymerized graft copolymer (6:10-15) worked-up (6:20-

25)/co-precipitated with a thermoplastic aromatic vinyl (co)polymer produced by solution polymerization (7:20-50).

Regarding Claims 37, Wittmann et al. further stipulates that flame retardants may be used as an additive to the molding composition, based on the desired properties (8:10-20). Wittmann et al. does not teach the specific flame retardant formula as stated in applicant's claim 35. However, Yoshida et al teaches the following flame retardant:



(Figure II)

where each of Q1, Q2, Q3 and Q4 is a substituent and independently represents an alkyl group having 1 to 6 carbon atoms; each of R1 and R2 is a substituent and represents a methyl group and each of R3 and R4 independently represents a hydrogen atom or a methyl group; n has an average value of 1 or more; each of n1 and n2 independently represents an integer of from 0 to 2; and each of m1, m2, m3 and m4 independently represents an integer of from 1 to 3. Wittmann et al. and Yoshida et al. are combinable because they are concerned with the same technical difficulty, namely flame retardants as additives to polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used Yoshida's flame retardant as an additive to Wittmann's molding composition, and would have been motivated to do so because Yoshida explicitly suggests the flame retardant is suitable for thermoplastic polymers.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Search History.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Perri G. Pleeter whose telephone number is (571)-272-9820. The examiner can normally be reached on Mon-Fri 7:30am-5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER

05 / Jul /07

PGP